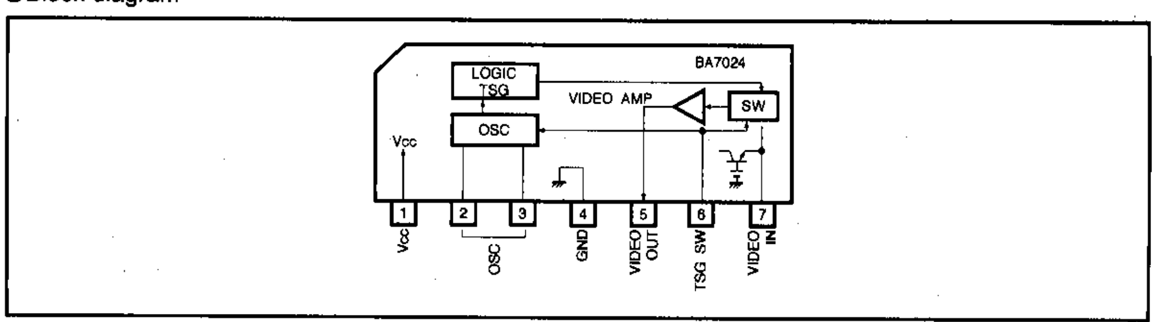
Video signal switcher with test pattern generator
BA7024

The BA7024 is a switching IC with built-in test-signal generator developed for use in VCRs.
A frequency divider is used to divide a 500kHz reference signal and produce the horizontal synchronization signal and white signal. The test pattern image is two white lines on a black background.

●Applications
Video cassette recorders

●Features
1)TSG generator circuit and video signal switch on one chip.
2)5V power supply.
3)Small 7-pin SIP package.

●Block diagram



●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Power supply voltage	Vcc	8.0	V
Power dissipation	Pd	400 *	mW
Operating temperature	Topr	−25~60	℃
Storage temperature	Tstg	−55~125	℃

* Reduced by 4.0mW for each increase in Ta of 1°C over 25°C.

●Recommended operating conditions (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	V_{CC}	4.5	5.0	6.0	V

●Electrical characteristics (Unless otherwise specified Ta=25℃ and V_{CC}=5V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	Measurement circuit
Circuit current	I_{CC}	–	7.5	11.5	mA	E_b=3V, TSG operating	Fig.1
<Video amplifier>							
Voltage gain	G_V	−0.5	0	0.5	dB	f=1MHz, V_{IN}=2V_{P-P}	Fig.1
Frequency characteristic	F	−0.5	0	0.5	dB	f=1∼5MHz	Fig.1
Crosstalk	CT	−40	−55	–	dB	TSG mode, V block oscillation stopped, E_b=3V	Fig.1
<TSG>							
V/S ratio	V / S	7 / 3	6.5 / 3.5	6 / 4	–	E_b=3V	Fig.1
Peak level	V_{TSG}	0.84	0.92	1.04	V	E_b=3V	Fig.1

●Measurement circuit

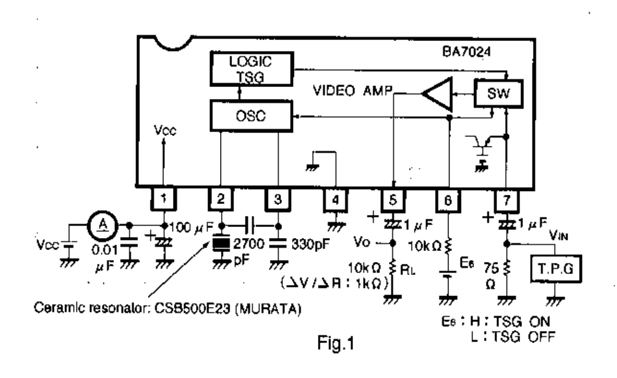


Fig.1

●Application example

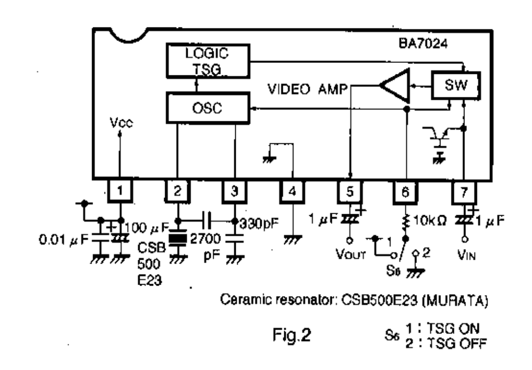


Fig.2

●External dimensions (Units: mm)

